REMARKS

The Office Action dated February 27, 2004, has been received and carefully considered. Reconsideration of the outstanding rejection in the present application is respectfully requested based on the following remarks.

Applicants note with appreciation the indication on page 3 of the Office Action that claims 2 and 3 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, Applicants have opted to defer rewriting the above-identified claims in independent form pending reconsideration of the arguments presented below with respect to the rejected claims.

I. THE OBVIOUSNESS REJECTION OF CLAIMS 1, 4-6, AND 8

On page 2 of the Office Action, claims 1, 4-6, and 8 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Graham et al.. This rejection is hereby respectfully traversed.

As stated in MPEP § 2143, to establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable

expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Also, as stated in MPEP § 2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990). Further, as stated in MPEP § 2143.01, to establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). That is, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d

1382, 165 USPQ 494, 496 (CCPA 1970). Additionally, as stated in MPEP § 2141.02, a prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Finally, if an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Regarding claim 1, the Examiner asserts that Graham et al. teaches an optical jumper substantially as claimed, except that Graham et al. does not teach connectors approximately 1 inch apart or the inner bend radius of the optical fiber greater than approximately 0.4 inches. The Examiner also asserts that Graham et al. describes an optical fiber 5.5 inches long (see column 5, lines 66-67). The Examiner further asserts that an optical fiber of the shape shown in Figure 2 of Graham et at. having a length of 5.5 inches would result in the connectors being approximately 1 inch apart and having a bend radius greater than approximately 0.4 inches. The Examiner goes on to assert that it would therefore have been obvious to one of ordinary skill in the art that the setup shown in Figure 2 of Graham et al. would

have the connector spacing of approximately 1 inch and an inner bend radius greater than approximately 0.4 inch.

However, contrary to the assertions of the Examiner, Graham et al. do not claim, disclose, or even suggest an optical jumper having an optical fiber that has an inner bend radius greater than approximately 0.4 inches so as to reduce optical loss therein, as presently claimed. For instance, the optical fiber of 5.5 inches as described by Graham et al. could easily have an inner bend radius less than approximately 0.4 inches, and the connectors as described by Graham et al. could easily be spaced greater than 1.5 inches apart or less than 0.5 inches apart. Indeed, since Graham et al. is directed toward attenuating optical signals, and such attenuation may be achieved by decreasing the inner bend radius of an optical fiber to less than approximately 0.4 inches (if indeed such a concept was in fact known at the time of Graham et al.), it is respectfully submitted that Graham et al. would likely have such a decreased inner bend radius. In fact, contrary to the claimed optical jumper, it is respectfully submitted that Graham et al. teaches away from reducing optical loss in optical fibers as the loop-back attenuators as taught by Graham et al. are actually purposefully designed to inflict optical losses in optical fibers. As stated in MPEP § 2141.02, a prior art reference must

be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). Thus, it is respectfully submitted that claim 1 would not have been obvious in view of Graham et al..

Claims 4-6 and 8 are also dependent upon independent claim 1. Thus, since independent claim 1 should be allowable as discussed above, claims 4-6 and 8 should also be allowable at least by virtue of its dependency on independent claim 1. Moreover, these claims recite additional features which are not claimed, disclosed, or even suggested by Graham et al.. For example, as discussed above, Graham et al. does not claim, disclose, or even suggest placing the first and second connectors approximately 1 inch apart so as to reduce optical loss in the optical fiber, as presently claimed. Also, as discussed above, Graham et al. does not claim, disclose, or even suggest placing the first and second connectors between approximately ½ and approximately 1½ inches apart so as to reduce optical loss in said optical fiber, as presently claimed. Furthermore, as discussed above, Graham et al. does not claim, disclose, or even suggest providing the optical fiber with an inner bend radius between approximately 0.4 inches and 0.75

inches so as to reduce optical loss therein, as presently claimed. In fact, as discussed above, Graham et al. teaches away from such features as the loop-back attenuators as taught by Graham et al. are actually purposefully designed to inflict optical losses in optical fibers. Thus, it is respectfully submitted that claims 4-6, and 8 would not have been obvious in view of Graham et al..

In view of the foregoing, it is respectfully requested that the aforementioned obviousness rejection of claims 1, 4-6, and 8 be withdrawn.

II. CONCLUSION

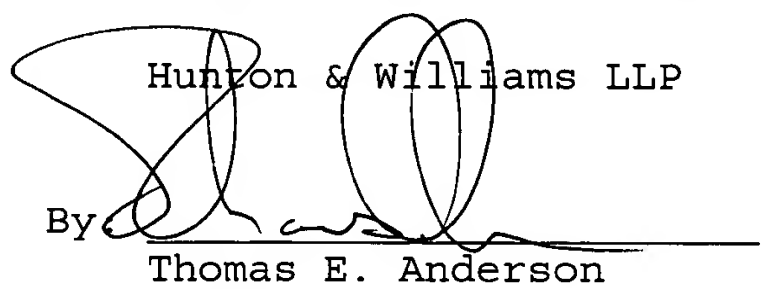
In view of the foregoing, it is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number, in order to expedite resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 CFR § 1.136 is hereby made.

Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,

Hunton & Williams LLP

By 

Thomas E. Anderson
Registration No. 37,063

TEA/

Hunton & Williams LLP
1900 K Street, N.W.
Washington, D.C. 20006-1109
Telephone: (202) 955-1500
Facsimile: (202) 778-2201

Date: May 27, 2004

APPENDIX A

1 (Previously presented). An optical jumper comprising:

a casing having an exposed end and a connector end; and

an optical fiber having a first connector on a first end and a second connector on a second end, wherein said first connector and said second connector are disposed at said connector end, and wherein said optical fiber has an inner bend radius greater than approximately 0.4 inches so as to reduce optical loss therein.

2 (Original). The optical jumper according to claim 1 further comprising:

a magnet carried by said casing for engaging a sensor in a mounting device.

3 (Previously presented). The optical jumper according to claim 2 wherein said magnet is located between said first connector and said second connector.

4 (Original). The optical jumper according to claim 1 further comprising:

a grip area on said exposed end of said casing.

5 (Previously presented). The optical jumper according to claim 1 wherein said first connector and said second connector are approximately 1 inch apart so as to reduce optical loss in said optical fiber.

6 (Previously presented). The optical jumper according to claim 1, wherein said first connector and said second connector are between approximately ½ and approximately 1½ inches apart so as to reduce optical loss in said optical fiber.

7 (Cancelled).

8 (Previously presented). The optical jumper according to claim 1, wherein said optical fiber has an inner bend radius between approximately 0.4 inches and 0.75 inches so as to reduce optical loss therein.

9 (Previously presented). An optical add/drop system comprising:

a first WDM having a plurality of first fiber optic lines for carrying monochromatic signals and at least one first fiber optic line for carrying polychromatic signals extending therefrom;

a second WDM having a plurality of second fiber optic lines for carrying monochromatic signals and at least one second fiber optic line for carrying polychromatic signals extending therefrom;

a first group of ports operatively connected to said plurality of first fiber optic lines;

a second group of ports operatively connected to said plurality of second fiber optic lines; and

at least one optical jumper having an optical fiber with a first connector on a first end of the optical fiber and a second connector on a second end of the optical fiber, said first connector for connecting to at least one of said first group of ports and said second connector for connecting to at least one of said second group of ports for facilitating optical communication between said at least one first fiber optic line of said first WDM and said at least one second fiber optic line of said second WDM.

10 (Previously presented). The optical add/drop system according to claim 9 wherein:

said optical jumper has a casing having a connector end; and

said first connector and said second connector are disposed

at said connector end.

11 (Original). The optical add/drop system according to claim 9 further comprising:

a sensor proximate at least one of said first group of ports and at least one of said second group of ports for detecting a presence of an optical jumper proximate said ports.

12 (Previously presented). The optical add/drop system according to claim 11 wherein said sensor is a magneto-resistive device for sensing the presence of magnet carried by said optical jumper.

13 (Previously presented). The optical add/drop system according to claim 12 wherein said sensor is a Hall effect sensor for sensing the presence of a magnet carried by said optical jumper.

14 (Previously presented). The optical add/drop system according to claim 9 further comprising:

means for sensing a presence of an optical jumper proximate said ports.

15 (Previously presented). The optical add/drop system according to claim 11 wherein said optical jumper has a magnet carried by said casing for activating said sensor in the optical add/drop device.

16 (Previously presented). The optical add/drop system according to claim 15 wherein said magnet is located between said first connector and said second connector.

17 (Previously presented). The optical add/drop system according to claim 10 wherein said casing has an exposed end having a grip area.

18 (Previously presented). The optical add/drop system according to claim 10 wherein said first connector and said second connector are spaced approximately 1 inch apart so as to reduce optical loss in said optical fiber.

19 (Previously presented). The optical add/drop system according to claim 10, wherein said optical fiber has an inner bend radius of greater than approximately 0.4 inches so as to reduce optical loss therein.

20 (Previously presented). The optical add/drop system according to claim 10, wherein aid optical fiber has an inner bend radius between approximately 0.4 inches and 0.75 inches so as to reduce optical loss therein.

21 (Previously presented) The optical add/drop system according to claim 10, wherein said optical jumper transmits an optical signal with an optical loss of less than 0.75dB.

22 (Original). The optical add/drop system according to claim 10 further comprising:

an LED proximate at least one of said groups of ports for indicating the presence of an optical jumper within said ports.

23 (Previously presented). A method of detecting a presence of an optical jumper in an optical add/drop device comprising the steps of:

providing a magneto-resistive device proximate ports for an optical jumper;

providing a magnet on said optical jumper;

installing said optical jumper in said ports; and

detecting a presence of said magnet with said magneto-resistive device.

24 (Original). The method according to claim 23 further comprising the step of:

indicating the presence of said optical jumper with an indicator.